**Claims**

1. A method of protecting an actuator against failure, comprising the following steps:
- establishing a norm (206) of factors affecting the operation of the actuator (201) as based on the operating environment (301) of the actuator,
- providing the norm (206) with a tolerance defining a condition for the operation of the actuator (201) in the operating environment (301),
- observing the operating environment (301) of the actuator (201) in order to detect a deviation that falls outside said tolerance, the observation being performed by means of an environmental fuse (220) having a sensor member (204) with a first connecting surface (401) and a second connecting surface (402) for feeding a flux through them, an active layer (403) therebetween which is arranged to cause a change in the flux's passing through the active layer (403) when
**characterized** in that the method comprises the following steps
cumulatively subjecting the active layer (403) to a component present in the operating environment (301), and
- limiting and/or interrupting a supply (203) to the actuator (201), in order to keep this in working order, in condition that said deviation falls outside said condition for the operation.

2. A method as defined in Claim 1, **characterized** in that the method comprises the step of generating an excitation by means of said sensor member (204).

3. A method as defined in Claim 1, **characterized** in that the method comprises generating of a response by means of a functional member (204) of the environmental fuse (202), in response to an excitation.

4. A method as defined in Claim 3, **characterized** in that said response comprises a function in which the supply (203) to the actuator (201) is limited and/or interrupted.

5. A method as defined in Claim 3, **characterized** in that said response comprises an alarm function (409).

6. A maintenance server (901), **characterized** in that it has means for processing, storing information concerning an alarm from an environmental fuse and/or for generating a response in order to limit and/or interrupt the supply to that

actuator whose environmental fuse is the source of the alarm, wherein said environmental fuse (220) has a sensor member (204) with a first connecting surface (401) and a second connecting surface (402) for feeding a flux through them, an active layer (403) therebetween which is arranged to cause a change in the flux's passing through the active layer (403) when cumulatively subjected to a component present in the operating environment (301), and means for limiting and/or interrupting a supply (203) to the actuator (201), in order to keep this in working order.

7. A maintenance server (901) as defined in Claim 6, **characterized** in that it is implemented with software means.

8. A maintenance server (901) as defined in Claim 6, **characterized** in that it has means for reporting alarm information to a data network.

9. A maintenance server (901) as defined in Claim 8, **characterized** in that said data network comprises one of the following: Internet, local network, network based on a cellular system and/or combination of some of these.

10. An environmental fuse (202) for protecting an actuator (201) against failure, the environmental fuse (202) having a sensor member (204) to detect a change that occurs in an environment (301) and deviates from a tolerance according to a norm (206), and a functional member (205) having functional means (408) to limit, interrupt the supply (203) to the said actuator (201) and/or to give an alarm (409), said environmental fuse being **characterized** in that the environmental fuse has a sensor member (204) having a first connecting surface (401) and a second connecting surface (402) for feeding a flux through them, an active layer (403) therebetween which is arranged to cause a change in the flux's passing through the active layer (403) when cumulatively subjected to a component present in the operating environment (301).

11. An environmental fuse (202) as defined in Claim 10, **characterized** in that it comprises a collecting arrangement for collecting a component present in the composition of the environment (301).

12. An environmental fuse (202) as defined in Claim 11, **characterized** in that said collecting arrangement is based on the collection of a component present in the

environment (301) on a substrate through diffusion, electrical interaction, impaction, interception, filtering and/or deposition.

13. An environmental fuse (202) as defined in Claim 11, **characterized** in that the collecting arrangement has a collecting substrate comprising a wire, strip, dielectric substrate, conductive substrate and/or filter.

14. An environmental fuse (202) as defined in Claim 10, **characterized** in that the sensor member (204) is arranged to detect particulate material, gas and/or moisture.

15. An environmental fuse as defined in Claim 10, **characterized** in that said flux is a flux of electric current.

16. An environmental fuse (202) as defined in Claim 10, **characterized** in that the change in said flux's passing is based on a change of the opacity of a medium and/or an interface thereof.

17. An environmental fuse (202) as defined in Claim 16, **characterized** in that said flux is a flux of radiation.

18. An environmental fuse (202) as defined in Claim 10, **characterized** in that said actuator (201) is the controller of another actuator.

19. An environmental fuse (202) as defined in Claim 10, **characterized** in that the environmental fuse (202) has
- a first component (E1) of the sensor member (204) to detect a first change that occurs in the environment (301) and deviates from a first tolerance according a norm (206), and
- a second component (E2) of the sensor member (204) to detect a second change that occurs in the environment (301) and deviates from a second tolerance according a norm (206).

20. An environmental fuse (202) as defined in Claim 19, **characterized** in that said first (E1) and second (E2) component (E1, E2) of the sensor member (204) are integrated into an integrated sensor member.

21. An environmental fuse (202) as defined in Claim 10, **characterized** in that the environmental fuse has

- a first functional member having functional means to limit, interrupt a first part of the supply to the actuator to be protected and/or to give an alarm, and
- a second functional member having functional means to limit, interrupt a second part of the supply to the actuator to be protected and/or to give an alarm.

22. An environmental fuse (202) as defined in Claim 10, **characterized** in that the environmental fuse (202) has a modular component to be replaced with another similar component.

23. An environmental fuse (202) as defined in Claim 22, **characterized** in that the the modular component of the environmental fuse (202) comprises the sensor member.

24. An environmental fuse (202) as defined in Claim 10, **characterized** in that the environmental fuse comprises a memory for storing an environment, actuator, norm and/or a quantity value dependent on the state of the environment.

25. An environmental fuse (202) as defined in Claim 10, **characterized** in that the environmental fuse comprises a memory for authenticating an environment, actuator, norm and/or a quantity value dependent on the state of the environment.

26. An environmental fuse (202) as defined in Claim 10, **characterized** in that the sensor member (204) of the environmental fuse (202) has an active layer (403, E3) having a capacitance, inductance and/or resistance.

27. An environmental fuse (202) as defined in Claim 26, **characterized** in that said active layer (403, E3) forms part of a measuring bridge.

28. An actuator (201), **characterized** in that the actuator has an environmental fuse (202) according to Claim 10.

29. An actuator (201) as defined in Claim 28, **characterized** in that it has an electric drive, power supply, drive controller, pump, fan and/or a preferred combination of these.